

# 参加方法

1. 展覧の登録書: 前掲の「展覧の登録書」を以下のいずれかの方法で PCS '95 Expo Registration 宛てに返送してください。



FAX: 617-329-8090



郵送: PCS '95 Expo Registration  
60 Washington Street  
Suite LL1  
Bedham, MA 02026-4449 USA



インターネットによる登録も可能

WEBアドレス:

<http://www/pcia.com>

インターネットEメール・アドレス:

[pcia@exporeg.com](mailto:pcia@exporeg.com)

2. 展覧の宿泊申込書に記入し、以下のいずれかの方法で PCS '95 Housing & Travel Information 宛てに返送してください:



FAX: 415-979-2270



郵送: PCS '95 Housing  
& Convention Management Resources  
633 New Montgomery, Suite 2070  
San Francisco, CA 94105 USA



電話: 415-979-2292

3. お問い合わせ、または電話で登録を希望の場合は、電話: 617-329-9580 または FAX: 617-329-8090 までご連絡ください。

電話または FAX の際は、正しい米国の電話番号をダイヤルしてください。



滞在を延期してオーランドの有名なテーマパークやレクリエーション・アクティビティをお楽しみください。

## 最新の製品をご覧ください

PCS '95 は業界で最も革新的な製品を展示する最大の展示場であり、大手メーカーがいかにかして消費者のニーズに応える製品を創造しているかを学ぶことができます。あなたのビジネスに必要な新しい製品のコンタクトを探すこともできます。また、出展者が一堂に会し、競合製品を対面で見学することができます。いま賢明に購買決定をするための情報を必要に備えましょう!

## アフター・アワー

PCS '95 での1日が終わったあとは、世界中で最も人気の高い観光地、オーランドの有名なアトラクションをお楽しみください。

ウォルト・ディズニー・ワールド、ユニバーサルスタジオ、シーワールドなどのテーマパーク、ケファ、カナベラルやケネディ宇宙センターをお訪ねください。またフロリダ海岸のビーチでのんびりと過ごしたり、近くのゴルフ場でゴルフを楽しむのもよいでしょう。

オーランドでは、1995 年パーソナル・コミュニケーションズ・ショーケースのあらゆる催物があなたの来訪をお待ちしています!

# 한 전시회 및 한 지붕 아래서 국제 무선 통신의 모든 분야와 장래성을 살펴 보십시오.

미국 플로리다주 올랜도시 오렌지 카운티 컨벤션 센터에서 1995년 9월 21일에 개최하는 PCS '95에 참가하시기 위해서는 지금 준비를 시작하십시오!

PCS '95는 오직 무선 통신에 대해서만 집중적으로 초점을 두고 있습니다. 음성 또는 데이터, 페이징 또는 셀룰러, 위성 통신 링크 또는 디지털 통신 등 어느 분야에 관심을 가지고 계시든 PCS '95에서 모든 것을 보시게 될 것입니다!

유럽, 북남미, 아시아 등 전세계의 통신 전문가들이 참석합니다! 무선 통신 산업에 종사하는 모든 지도적 기술 혁신가들이 참석합니다.

이들은 1995년에 산업, 장래성 및 전망에 대해 전반적인 최신 상황을 파악하는 데 이보다 더 좋은 곳이 없다는 것을 알기 때문에 올랜도로 오는 것입니다.

## 이 독특한 국제적 교육 행사에 참여하십시오.

PCS '95는 30회 이상의 강습회를 통해 모든 중요한 이슈를 취급함으로써 타의 추종을 불허하는 교육 기회를 제공합니다. PCS '95는 다음과 같은 것을 여러분에게 알려 드릴 것입니다.

- 어떻게 로밍, 에어 인터페이스 표준, 위성 서비스 및 시멀리스 통신 환경이 국제적으로 발전하고 있는가.
- PCS, 이동 데이터 및 기타 서비스의 미래는 어떠한가. PCS '95에서 새로 등장하는 국제 시장에 대해 심층 지식을 얻으십시오.
- 위성 통신 서비스는 전체 무선 통신 분야에서 어느 부분에 적합한지 그리고 국내 및 국제 규정이 위성 통신의 성장에 어떻게 영향을 미치는가.

## 외국 방문객들을 위한 특별 서비스를 즐기십시오.

PCS '95는 여러분의 방문이 즐겁고 보람 있도록 하기 위해 다양한 서비스로 외국 방문객을 맞이할 것입니다.

PCS '95의 인터내셔널 비즈니스 센터에는 여러분의 편의를 위해 통역사, 전화 및 휴게실이 마련되어 있습니다. 또한 여러분의 나라로 수출하는 데 관심을 가진 PCS '95 전시 업체를 소개하여 드릴 수 있습니다.

여행 지원, 식당 예약, 인근 명소에 대한 안내 등 여러 가지 도움을 인터내셔널 비즈니스 센터에서 받으실 수 있습니다.



## 참석 방법

1. 동봉한 등록 양식을 완전히 작성하여 팩스 또는 우편으로 PCS '95 Expo Registration 앞으로 보내시기 바랍니다.



팩스: 617-329-8090



우편: PCS '95 Expo Registration  
150 Washington Street  
Suite LL1  
Dedham, MA 02026-4449 USA



또한 인터넷을 통하여 등록하실 수도 있습니다.

WEB 주소:

<http://www.pcia.com>

인터넷 전자 우편 주소:

[pcia@exporeg.com](mailto:pcia@exporeg.com)

2. 동봉한 숙소 예약 양식을 완전히 작성하여 팩스 또는 우편으로 PCS '95 Housing & Airline Travel Information 앞으로 보내십시오.



팩스: 415-979-2270



우편: PCS '95 Housing  
& Convention Management Resources  
33 New Montgomery, Suite 2070  
San Francisco, CA 94105 USA



전화: 415-979-2292

3. 문의 사항이 있으시거나 전화로 등록하기를 원하시면 617-329-9580 번으로 전화하시거나 617-329-8090 번으로 팩스를 보내실 수 있습니다.

또한 전화를 하시거나 팩스를 보내실 때에는 반드시 미국 국가 번호를 사용하시기 바랍니다.



올랜드의 유명한 테마 공원과 오락 시설을 방문하실 수 있도록 일정을 길게 잡으시기 바랍니다.

### 모든 최신 제품을 관람하십시오

PCS '95는 업계에서 가장 혁신적인 제품을 소개하여 드립니다. 어떻게 하면 새로운 고객에게 활용할 수 있는 신제품을 개발하는지 배우실 수 있습니다. 여러분의 사업에 필요한 서비스를 제공하는 회사들과 만나실 수 있습니다. 200개 이상의 회사가 출품하므로 경쟁 제품을 자세히 비교할 수 있습니다. 현명한 구입을 하시고 여러분의 미래가 요구하는 성공적인 투자를 하십시오!

### 업무외 시간은?

PCS '95에서 업무가 끝나면 여러분은 세계 최고 관광지 가운데 하나인 올랜드 지역의 명소에 둘러싸일 것입니다.

월트 디즈니 월드, 유니버설 스튜디오 플로리다, 시월드 등의 테마 공원을 구경하십시오. 케이프 카네베랄과 케네디 우주 센터를 방문하십시오. 플로리다 해변과 수많은 인근 골프장에서 느긋하게 긴장을 푸십시오.

이 모든 것이 올랜드에서 여러분을 기다리고 있으며, 추억에 남을 1995 Personal Communications Showcase 방문의 한 부분이 될 것입니다.

## 本行業最權威的博覽會——PCS'95

PCS'95將於1995年9月21日在美國佛羅里達州奧蘭多市橙郡會議中心舉行！請立刻作出赴會安排。

PCS'95乃無線通訊設備精品專展。無論您感興趣的是話音還是數據、是傳呼服務還是蜂窩通訊、是衛星收發器材還是個人數字通訊設備，PCS'95無所不包！

屆時將有來自歐洲、南北美洲、亞洲以及世界各地的通訊專家與會！為無線通訊行業服務的所有一流發明家將親臨會場解答您的問題。

他們之所以雲集奧蘭多，是因為他們知道1995年沒有任何其他展覽能夠像本屆博覽會一樣如此完備地提供無線通訊行業的最新發展狀況、潛力和前景。

### 參加別具一格的國際講習班

PCS組織了無與倫比的教育活動，計劃共舉辦三十多期講座，內容涉及所有重大問題。您在PCS'95上一定可以瞭解到：

- 漫遊、空中界面標準、衛星服務和無縫通訊環境在全球範圍內的演進；
- PCS、移動數據及其他服務的發展前景。您在PCS'95上會深入瞭解世界各地正在形成的新興市場；
- 以衛星為基礎的服務怎樣與整個無線通訊行業融為一體，以及各國國內和國際上採取的管理措施對開發多用途衛星服務正在發生何種影響。

### 享受國外來賓的特殊待遇

PCS'95為國外來賓安排了一系列服務，確保您在博覽會期間心情快樂，收穫豐碩。

PCS'95國際業務中心為您準備了譯員、電話和休息室。我們還可以為您介紹對向您所在國家出口感興趣的參展公司。

安排行程、預訂旅館、介紹附近觀光景點……國際業務中心的服務內容應有盡有。



## 怎樣註冊



請多安排幾天時間，以便盡情享受奧蘭多著名的專題公園和遊樂活動。

### 瀏覽最新產品

PCS'95將為您介紹本行業最富有創造力的生產廠家。您會瞭解到日臻完善和技術怎樣產生便於客戶使用的新型產品。您可以根據企業需求建立各種新的服務關係。本屆博覽會參展公司有二百多家，您可以對同種產品進行現場比較。您會作出明智的購買決定。一做生企業未來發展必不可少的有利交易。

### 怎樣消磨會餘時光？

作為全世界的熱門觀光勝地之一，奧蘭多地區的著名景點不可勝數。您在完成PCS'95的業務活動之後可以盡情遊樂。

您可以遊覽迪斯奈樂園的專題公園，佛羅里達環球電影遊樂場和海洋世界。還可以參觀卡納維拉爾角的甘乃迪宇航中心。另外，佛羅里達的海灘和附近的幾十個高爾夫球場都是放鬆的好地方。

奧蘭多的一切都在等待您……它們將和1995年個人通訊設備博覽會一樣，融入您的記憶之中，使您難以忘懷！

1. 請認真填寫隨信寄上的註冊表，然後寄回PCS'95大會註冊處。收件地址是：



電話：617-329-8090



PCS'95 Expo Registration  
100 Washington Street  
Room 111  
Boston, MA 02026-4449 USA



您還可以通過電子郵件註冊

網址地址：

<http://www.pcia.com>

Internet 電子郵件地址：

[reg@exporeg.com](mailto:reg@exporeg.com)

2. 請認真填寫隨信寄上的住宿登記表，然後寄回PCS'95住宿與航班資訊處，收件地址是：



電話：415-979-2270



PCS'95 Housing  
Convention Management Resources  
220 New Montgomery, Suite 2070  
San Francisco, CA 94105 USA



電話：415-979-2292

3. 如果您有疑問，或者希望打電話註冊，請用以下號碼和我們聯絡：617-329-9580 (電話)；617-329-8090 (傳真)。

在電話或傳真聯絡時，請注意使用代辦美國的確號碼。

# Preliminary Schedule

# Exhibitor List



## September

Registration	9:00 a.m. - 5:00 p.m.
Preconference Program	8:00 a.m. - 5:00 p.m.



## September

Registration	7:30 a.m. - 5:00 p.m.
Super Session	9:00 a.m. - 5:00 p.m.
Exhibits Open	11:00 a.m. - 5:00 p.m.
Concurrent Sessions	1:00 p.m. - 5:00 p.m.
Opening Reception	4:00 p.m. - 5:00 p.m.
PCS '95 Gala*	7:00 p.m. - 11:00 p.m.



## September

Registration	8:00 a.m. - 5:00 p.m.
Super Session	9:00 a.m. - 5:00 p.m.
Exhibits Open	11:00 a.m. - 5:00 p.m.
Concurrent Sessions	10:45 p.m. - 11:00 p.m.



## September

Registration	8:00 a.m. - 5:00 p.m.
Special Session	9:00 a.m. - 5:00 p.m.
Exhibits Open	9:00 a.m. - 5:00 p.m.
Florida Brunch (Exhibit Hall)	9:00 a.m. - 10:00 a.m.

\* Held at Universal Studios. Special ticket required for access.

- 3M/Telecom System Div.
- A.G. Beeper Accessories
- AAT Communications
- AccessLine Technologies
- Accutech International
- Advance Label & Tag
- Advanced Signal
- Allen Telecom Group
- Allgo
- Alpha Argus
- Americas Network
- American Management
- Systems AMS
- Anchor Graphics
- Andrew Corporation
- Anti International Inc.
- Arch National Paging
- ARFIS
- Assemble Products Corporation
- Astich Corporation
- AS/PCNET Corporation
- ATA Network Wireless Systems
- ATA Information Systems
- Autovox Cellular Communications
- Ba & Systems
- Baker Products
- Bee Electronic
- Be & Atlanta
- Be & Inc.
- BIE Publications/Consulting
- Briefcase Systems Inc.
- Cambridge
- Canamex Communications
- Corporation
- Capital Data Systems
- Casio Computer/Mitsui Comtek
- Cellcom
- Cellular Business Magazine
- Cellular Services Inc.
- Cellwave
- Cellgram
- Cellular International Inc.
- Cellnet
- Celltech Systems Inc.
- Communications Associates
- Comp Comm Inc.
- Computer Resources
- COMSAT RS
- Comsearch
- Converse Technology Inc.
- Consultants of Consultants
- (Texas PCS)
- Creative Applications Inc.
- Cyber
- Cyberflow Inc.
- Cyberlink
- Cybercraft Corporation
- D & Associates
- DAPA Communications
- DataCard Corporation
- Dartel Telecommunications
- International
- Desktop Paging Software Inc.
- Devex Electronic
- Lab & Communications
- Digital Microwave Corporation
- Elite Sound Corporation
- Direct Paging
- Direct Power Plus
- Discover Card Services
- ISP Communications Inc.
- Dynamo Dresden Inc.
- Eagle Telecom International
- EGS Personal Communications
- EX Engineering
- EMS Wireless
- Engineered Endeavors
- Financial Services Billing Inc.
- Interna Systems Inc.
- IP Wireless
- Introsol
- Introsol Software
- IS Cases & Accessories
- Iveron America
- IVTEK Corporation
- Ixual Inc.
- ixcell Agent Services
- Express Cellular Products
- Fibreband Corporation
- Electronic Comtek
- Fleming's Fund
- Freeman Engineering
- Associates Inc.
- Frequency Management
- FWT Inc.
- Generac
- Gemayre Electronics
- GPD Associates
- Grayson Electronics
- GTE Government Systems
- Haddcomm International Inc.
- Hark Systems Inc.
- Hazeltine
- Hewlett-Packard
- Huber & Suhner Inc.
- Hughes Network Systems
- Hy-Q International Inc.
- IFR Systems Inc.
- In-Touch Management Systems
- Info Cellular
- Information Radio Technology Inc.
- Intostream
- Integrated Site Development Co.
- Intelligent Information
- International Telecommunication
- Data Systems
- Intuitive Software Solutions
- JB Communications
- JTECH
- Kossuth & Associates Inc.
- Lasertron
- Lawrence Behr Associates Inc.
- LCC Inc.
- Le Blanc Communications
- Leatex
- Light Bridge Inc.
- LOCATE/PCN-One
- Marconi Instruments Inc.
- Maxon America Inc.
- Meridian Communications
- Message Center USA
- Microspace Communications
- Corporation
- Milcom International Inc.
- Minerich Inc.
- Minilec Services Inc.
- Miracom Technologies Inc.
- MLJ
- Mobile Mark
- Mobile Office Magazine
- Mobile Systems International
- MobileComm
- Motorola Pan American
- Paging Division
- MTA-EMCI
- NATCOM Inc.
- NEC America Inc.
- Network Building & Consulting
- Network USA
- NEXUS Telecommunication
- Systems
- Nokia Mobile Phones
- Northeastern Land Services Ltd.
- Northern Technologies Inc.
- Northern Telecom Inc.
- NovaLink Technologies Inc.
- NS&D
- NSN Network Services
- Omnipoint
- ORA Electronics
- Ortel Corporation
- Output Services Group
- P-Comm
- Pacific Communication
- Sciences Inc.
- PageNet
- PageRepair Inc.
- Panasonic
- PCS Wireless
- Personal Communications
- Industry Association
- Phillips Business Information
- Pinon International Inc.
- PolyPhaser Corporation
- Positive Communications
- PR Communications Inc.
- Qualcomm
- RAM Systems Development
- RCR Publications
- Real Time Strategies
- Reflection Technology
- REO Enterprises
- Richard Connor Riley
- & Associates
- RMS Communications Group Inc.
- ROHN
- Rules Services Company
- Sabre Communications
- SAFCO Corporation
- Samsung Telecommunications
- of America
- Scala Electronic Corporation
- Securicor Wireless Net
- Seiko Communication
- of America Inc.
- Shinwa Communications
- of America
- SKYDATA Inc.
- SkyTel
- Socket Communications
- Southern Micro Graphics
- SpaceCom Systems
- Spectrum Communications
- Corporation
- Star Paging
- Statistical Control Systems
- Stealth Network Technologies Inc.
- Steinbrecher
- Subscriber Computing Inc.
- SunGard Mailing Services
- Sunrise Credit Services Inc.
- Survey Technology Inc.
- SW & Associates
- Swatch
- Szeto
- TEC Cellular
- TekNow Inc.
- Teledynamics
- TeleLink Technologies
- Tempco Corporation
- TGA Systems Inc.
- The National Dispatch Center
- The PAL Group
- Times Microwave Systems
- TowerWatch Inc.
- TRW
- TWR Telecom Inc.
- Unibridge
- Uniden America Corporation
- Valley Products Corporation
- Valmont Industries
- VCP International
- W&W Associates
- Wacom Products Inc.
- Wavelex Corporation
- Western Multiplex
- Wireless NOW
- Zetron Inc.

6  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
66  
67  
68  
69  
70  
71  
72  
73  
74  
75  
76  
77  
78  
79  
80  
81  
82  
83  
84  
85  
86  
87  
88  
89  
90  
91  
92  
93  
94  
95  
96  
97  
98  
99  
100

## **ISSUES OF PARTICULAR CONCERN TO ANTICIPATED AUDIENCE**

The following issues are of particular concern to PCIA's membership and the likely audience at PCS '95 in Orlando:

- I. MICROWAVE RELOCATION (TAB A)
  - A. Balancing rights of incumbents and PCS licensees (TAB B)
  - B. Microwave relocation cost sharing (TAB C)
- II. BUILDING THE WIRELESS INFRASTRUCTURE
  - A. Responsible policies governing siting of wireless telecommunications facilities (TAB D)
  - B. Access to government lands and facilities for siting purposes (TAB E)
- III. NUMBERING ADMINISTRATION
  - A. Exhaust of toll free numbering resources and access to toll free numbers for personal communications services, such as paging (TAB F)
  - B. NPA relief activities (TAB G)
  - C. Future administration of the North American Numbering Plan (TAB H)
- IV. SPEEDING AUCTIONS OF REMAINING PCS LICENSE (TAB I)
- V. BROADCASTER FLEXIBILITY (TAB J)
- VI. MARKET AREA LICENSING OF PAGING (TAB K)
- VII. INTERCONNECTION AND RESALE POLICIES (TAB L)

Brief descriptions of these issues follow, with some background reference materials, as appropriate. Please do not hesitate to contact Mark Golden at PCIA for additional information on this or any other issue.





ALL STATE, LOCAL, AND FEDERAL GOVERNMENTS RECYCLED

## **MICROWAVE RELOCATION**

Some 9,000 microwave links are deployed in the spectrum allocated to licensed, broadband PCS. While in some areas of the country it may be possible for PCS to co-exist with these incumbents, at least in the short term, in many key markets the relocation of microwave facilities is a necessary prerequisite for the deployment of services.

PCS licensees are obligated to protect incumbent microwave licensees from interference from PCS operations and, when this is not possible, to relocate them to comparable facilities outside the PCS spectrum. The full cost of this relocation is the PCS operator's responsibility. The PCS operator is also obligated to guarantee that the new facilities are comparable and, if this does not prove to be the case, return the microwave licensee to their original facilities.

PCIA has identified several problems which could thwart the successful deployment of broadband PCS. Some simply require clarification: others require a rulemaking proceeding. PCIA has identified these issues to the Commission and is urging the most rapid possible action to address them.

## CHALLENGES FACING THE PCS INDUSTRY

The FCC has put significant effort into establishing a framework for the auctioning of 2 GHz spectrum for the provision of new Personal Communications Services (PCS) and the transition of the band from fixed microwave operations to PCS. The Personal Communications Industry Association (PCIA) has played a major role working with the PCS industry and the Commission to facilitate the deployment of the new products and services that will change the face of the communications industry. As the time for actual deployment of these new services arrives, it is critical that the Commission act quickly to remove some obstacles that threaten the successful conclusion of all of the Commission's work over the last several years. PCIA urges the FCC to take rapid steps to resolve these issues, some of which only require clarification of the PCS Rules while others may require a rulemaking proceeding.

### ISSUES REQUIRING CLARIFICATION:

Microwave Incumbents Are Entitled Under FCC Rules to a Comparable System, Not Premium Payments. The Commission should clarify its rules and clearly state that the 2 GHz transition rules are to protect incumbents from injury due to relocation and not to be used to extract additional payments above the cost of a comparable system from PCS providers. Some incumbents seem to misunderstand the FCC's regulations and believe that they are free to threaten to delay deployment of PCS unless large premiums are paid.

A Public Notice Starting the Voluntary Relocation Period for Microwave Relocation for All PCS Spectrum Blocks Should Be Promptly Issued. The Commission announced that the start date for A and B Block voluntary microwave relocation periods was April 5, 1995. However, A and B Block licensees may need to clear microwave links from the adjacent channels in the C, D, E and F Blocks in order to deploy their systems. Therefore, a public notice should be released which starts the voluntary negotiation period for all PCS blocks. PCIA notes that starting the voluntary negotiation period in no way changes the one year notification that microwave licenses are guaranteed in the rules. (Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, 8 FCC Rcd 6589, 6595 ¶ 15 (1993)).

The 12 Month Testing Period for Relocated Microwave Licensees Should Begin When the Cut-Over to the New System Occurs. The transition rules should be clarified to state that the 12 month testing period for an incumbent's new system begins when the incumbent starts using the new system. This will eliminate any ambiguity as to when the new system is accepted.

When the 12 Month Testing Period Ends, the Party Holding the License Should Surrender the Authorization and the FCC Should Issue a Public Notice Stating That the Link Has Been Decommissioned. So that there is no confusion among PCS licensees trying to deploy their systems as to which microwave licenses are still authorized, the microwave license for a relocated licensee should be surrendered to the FCC when the testing period has expired, and the Commission should issue a public notice so all PCS licensees will be aware that the incumbent has been successfully relocated.

#### **ISSUES REQUIRING A RULEMAKING PROCEEDING:**

The FCC Should Initiate A Rulemaking Proceeding and Adopt A Mandatory Cost Sharing Plan based on PCIA's Consensus Proposal. To facilitate the rapid relocation of the microwave licensees in the 2 GHz band, the FCC should adopt rules consistent with the proposal filed by PCIA. The PCIA proposal protects the interests of PCS providers and microwave incumbents, takes advantage of the efficiencies from a coordinated relocation process, and minimizes the administrative burden on the Commission.

No Additional Microwave Links in the PCS Spectrum Should Be Granted Primary Status. The initial PCS auctions have been completed and PCS providers are beginning to relocate microwave incumbents in their license areas and deploy PCS systems. Any new links granted primary status by the Commission will only increase the number of links that PCS providers must relocate and delay the delivery of PCS to the public.

PCS Providers Should Be Allowed to Hold a Relocated Microwave Incumbent's License During the Testing Period. The FCC should modify its rules to allow a PCS provider to hold the incumbent's license during the 12 month testing period. This will ensure that at the end of the testing period when the incumbent is satisfied with its new system, the PCS provider can surrender the license to the FCC and see that a public notice is issued.

\* \* \*

Swift action by the Commission to address these issues and ensure that the deployment of PCS is not delayed and that these new services are available to the public on an expedited basis.



## **MICROWAVE RELOCATION**

### **A. Balancing rights of incumbents and PCS licensees**

FCC rules govern the relocation process. These rules were crafted to provide absolute protection to incumbent microwave licensee: they ensure that the microwave incumbent suffers no operational or economic harm from the relocation process.

PCIA fully supports this approach: in fact, the microwave relocation plan adopted by the FCC in ET Docket 92-9 is based upon a consensus proposal developed by the association and submitted to the Commission in June of 1992.

Some incumbents, however, are attempting to use these rules to extract additional payments above the cost of a comparable system, leveraging off their ability to delay deployment of PCS services.

PCIA believes the Commission should clarify that microwave incumbents are entitled to a comparable systems, not premium payments.



Jay Kitchen, President

April 28, 1995

The Honorable Reed E. Hundt  
Chairman  
Federal Communications Commission  
1919 M Street, N.W., Room 814  
Washington, D.C. 20554

Re: PCS/Microwave Relocation Issues

Dear Mr. Chairman:

The Commission's allocation of spectrum for Personal Communications Services ("PCS") and, in particular, the PCS band plan that was largely a product of your office's tireless work with the industry, represents a major achievement for the agency. More recently, the smooth and timely implementation of the auction for the A and B block spectrum exceeded virtually everyone's expectations, both within and outside the agency. You are to be commended for your efforts in placing these valuable PCS licenses in the hands of entrepreneurs who, in turn, may now proceed to provide innovative and beneficial services to the public.

The PCS industry is now gearing up for the difficult work required to bring your vision, and the vast promise of this exciting new technology, into reality. For example, PCIA is now developing plans for facilitating the relocation of entire microwave systems, as opposed to ad hoc replacement of individual microwave links, in response to microwave licensees' concerns. PCIA's efforts also include continued exploration of the feasibility of implementing a cost sharing program to encourage coordinated relocation activities among affected PCS providers.

Unfortunately, just as PCS is moving forward, it has become apparent that there exists a substantial potential for serious troubles to arise from abuses of the rules adopted to protect microwave licensee interests in the relocation process. These troubles threaten the realization of the Commission's goals for prompt deployment of PCS service to the public notwithstanding the PCS industry's commitment to that process.

PCIA firmly and unquestionably supports the rights of microwave licensees to the provision of full cost compensation and comparable alternative facilities in exchange for their agreement to relocate from the PCS spectrum. Indeed, PCIA has worked very hard in

1019 19th Street NW, Suite 1100  
Washington, DC 20036-5105  
Tel: 202-467-4770  
Fax: 202-467-6987

1501 Duke Street  
Alexandria, VA 22314-3450  
Tel: 703-739-0300  
Fax: 703-836-1608

PCIA is the consolidated name of the Personal Communications Industry Association and the National Association of Business and Educational Radio

Honorable Reed Hundt  
April 28, 1995  
Page 2

this context. The current rules largely track PCIA proposals and most recently the Association worked hard to maintain tax relief for relocation sales and exchanges. However, it has now come to PCIA's attention that those rules may be misused by certain parties to achieve perverse results which were unintended by the agency and are clearly not in the public interest.

At least one major organization seeking to represent collectively microwave licensees in the relocation process has distributed materials that graphically underscore and promote the use by incumbent microwave licensees of their inherent bargaining leverage to extract excessive premium payments in relocation negotiations. This marketing material clearly suggests exploiting the FCC's safeguards -- which were adopted to protect microwave licensees from being abused themselves -- to extract enormous payouts from PCS licensees. That material stresses the economic pressures faced by PCS licensees who need to move quickly to implement service because of the substantial financing costs that would result from any delay and points out the control a microwave licensee can exercise to block prompt service deployment by stalling on its relocation negotiations. The implicit message conveyed is that the combination of the existing rules and the large sums paid out by auction winners encourage strategic behavior by microwave licensees that the FCC never contemplated, never would endorse, and should not tolerate now.

If this suggested pattern of abuses materializes, the FCC can and should consider several options to prevent such misuse of its rules. First, the Commission should consider whether the voluntary negotiation periods afforded under the rules should or, indeed, can be maintained in an environment where microwave licensee organizations are seeking to misuse them for purely private pecuniary gain. Elimination of such periods could go a long way toward diffusing the threat that microwave licensees could delay the introduction of PCS services as a means to extract unwarranted concessions.

Second, the FCC should consider whether or not to place a limit on the total cost compensation and value of comparable alternative facilities available to microwave licensees in order to eliminate any possibility that an unmerited premium could be sought or obtained during the mandatory negotiation period.

Finally, the Commission should consider whether the current 12 month testing period -- which permits a microwave licensee to be returned to its original facilities within a year after cutover to new facilities where the latter prove not to be comparable -- should be eliminated to prevent efforts by microwave licensees to extract premiums for early release from this obligation.



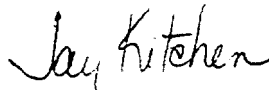
Honorable Reed Hundt

April 28, 1995

Page 3

As stated above, PCIA is strongly committed to facilitating the achievement of the Commission's and the industry's goals for early deployment of PCS. PCIA therefore urges you to take whatever actions may be necessary to ensure that the economic interests of private parties are not permitted to interfere with the public interest in delivery of these important and valuable services.

Respectfully submitted,

A handwritten signature in cursive script that reads "Jay Kitchen". The signature is written in dark ink and is positioned above the printed name.

Jay Kitchen



Phone (202) 351-9491  
Fax (202) 351-7629

November 21, 1994

## **IMPORTANT INFORMATION FOR ALL 2 GHz LICENSEES**

### **Big Money and Your 2 GHz Microwave Band Relocation**

Dear 2 GHz Licensee:

The Federal Communications Commission (FCC) has received 74 applications to participate in an auction, beginning December 5, 1994, of 99 Major Trading Area licenses to provide Personal Communications Services in the 2 GHz band (broadband PCS) on frequency Blocks A and B.

As expected, the bidders for the MTA licenses include some of the largest telecommunications companies in the United States. Among those submitting applications were:

- Associated Vendors (Associated Communications)
- AT&T Wireless PCS Inc.
- Continental Cablevision, Inc.
- Radiofone Nation-wide Paging Services, Inc.
- American Portable Telecommunications, Inc.
- WirelessCo, Limited Partnership (Consortium of Sprint, Comcast, Cox Communications and Telecommunications, Inc.)
- GTB Macro Communications Corporation
- PCS Primeco Limited Partnership (Consortium of Nynex, Bell Atlantic, US West and Air Touch)
- BellSouth Personal Communications, Inc.
- Comcast Telephony Services II, Inc.
- Cox Cable Communications, Inc.
- Pacific Televis Mobile Systems
- Southwestern Bell Mobile Systems, Inc.

I also wanted you to realize that 74 PCS providers:

- ☒ Are investing "big" money.
- ☒ Want their investment to work.
- ☒ May be the proud owners of your 2 GHz microwave license in the very near future.
- ☒ Are in a hurry to enter the market.

#### **AND WHAT HAVE YOU DONE?**

- ☒ Will you be ready for the transition?

1140 Connecticut Avenue, N.W., Suite 1112, Washington, DC 20036

## IMPORTANT INFORMATION FOR ALL 2 GHz LICENSEES

Page 2

These applicants were required to submit their upfront payment for the December 5 auction by Friday, November 18, 1994.

For example, the upfront payment by a PCS provider for the following four Major Trading Areas, consisting of either one or two 30 MHz MTA Frequency blocks, amounted to:

<u>Market No.</u>	<u>Major Trading Area</u>	<u>Population</u>	<u>Upfront Payment</u>	<u>Block(s)</u>
M-1	New York	26,410,597	\$ 15,846,599	B Only
M-3	Chicago	12,069,700	\$ 7,241,820	A & B
M-10	Washington-Baltimore	7,777,875	\$ 4,666,725	B Only
M-34	Kansas City	2,913,304	\$ 1,747,983	A & B

\* Upfront Payment = Population x Block Size in MHz x \$.02

The upfront payment is small compared to the "big money" the successful bidder will have to pay for a PCS license in the December 5, 1994 auction.

Money issues are always interesting and intriguing. Following is an example of the amount of investment which might be made by a PCS provider for the Major Trading Area No. 10, Washington-Baltimore:

<u>Market No.</u>	10
<u>Major Trading Area:</u>	Washington-Baltimore
<u>Upfront Payment:</u>	\$ 4,666,725

Interest otherwise earned on upfront payment:

8% YEARLY INTEREST RATE OTHERWISE EARNED:	\$ 373,300
8% MONTHLY INTEREST RATE OTHERWISE EARNED:	\$ 31,100

<u>Possible Auction</u>	\$752,000,000
<u>Bidding Price for MTA No. 10</u>	due and payable 5 days after the license has been awarded.

Interest otherwise earned on auction investment:

8% YEARLY INTEREST RATE OTHERWISE EARNED:	\$ 60,160,000
8% MONTHLY INTEREST RATE OTHERWISE EARNED:	\$ 5,000,000

## **IMPORTANT INFORMATION FOR ALL 2 GHz LICENSEES**

Page 3

Marketing issues are also very interesting. Now that we have learned how the PCS provider who invested in the Washington-Baltimore License Block B could receive, conservatively speaking, a monthly interest of — WOW! — \$5,000,000 on his auction investment, we can determine without a doubt that the PCS provider will be most anxious to enter the PCS market in a hurry to recoup its investment. The PCS provider needs to enter the market the minute he has been issued the 2 GHz license. *The PCS provider cannot afford to lose \$5,000,000 per month and more, especially since he will have to spend millions or even billions more to build his network.*

### **NOW THE MOST IMPORTANT QUESTION, YOU THE 2 GHz LICENSEE SHOULD ASK:**

**"What have I done to be ready for the transition?"**

Over the past several months we have suggested that you plan early. We asked you to address crucial decisions about your relocation, such as:

- Where to go?
- What should the compensation package include?
- What negotiation strategy should I employ?

Are you prepared to accomplish this major transition task alone? If not, UTC Service Corporation and its Transition Team can assist you.

Call us today toll-free at 1-800-900-4882 and find out how we can assist you in relocating from the 2 GHz band.

Sincerely,



Trudy Richmond  
Marketing and Sales Manager



**By Melinda Powellson**

San Diego six years ago. Eger has succeeded in making himself an indispensable advisor to Mayor Susan Golding.

professor at San Diego State, was appointed to the board of the San Diego Data Processing Center, a city-owned agency that provides the city with computer services. He also serves as chairman of San Diego's City of the Future Committee, a group intended to make San Diego the "hub of information technology."

Now Eger is involved in another city project — but this time, he's getting paid. Last month, City Manager Jack McGrory awarded a \$245,000 contract to a nine-member consulting team led by the Washington, D.C. law firm

Keller and Fleckman. Tiger will serve as the group's "strategic advisor" for a fee of \$2.70 an hour.

The consultants' assignment: to help negotiate a deal that may be worth millions of dollars to taxpayers. (It maybe not.)

Next year, big cable and telephone companies want to begin offering a new kind of "personal communication system," supposed to revolutionize the way America communicates. Tiny pocket cellular phones will be able to take incoming calls and pages and serve as an answering machine — all for a nominal fee.

But before telecommunications companies can proceed, they have to clear airwaves currently used by local government for police, fire, and ambulance transmissions. Cities have been ordered to find another frequency on the spectrum for their networks. By law, the new occupants of the frequencies must pay for the expensive equipment required to build new systems for the cities.

Tension is mounting: the cities want to be compensated for moving, while manufacturers complain, anxious to market their products as soon as possible, say they don't want to be restricted.

The Keller and Heckman team is being paid to determine how much money the city should charge for the move. The law firm will also evaluate unspecified "strategic partnerships" with telecommunications firms.

That has John Fier's fingerprints all over it," says Michael James of U.S.A.

(Utilities Consumer Action Network), a consumer watchdog group. He pointed out that Eger has encouraged public-private partnerships in the past.

Other cities across the country are grappling with the same problems. But instead



of hiring costly consultants, Los Angeles, San Francisco, Portland, and Seattle are all handling the negotiations on their own. "We don't want to waste the taxpayers' money," says Ivel Harrington of Portland. "This is an issue of securing emergency expenditures — not about making Washington, D.C. lawyers rich."

The debate began when the Federal Communications Commission (FCC) decided to reevaluate how it divided the radio spectrum. To accommodate the booming cellular industry, the FCC considered the

Telecommunications giant Pacific Telephone and Cable, known paid \$20 million to secure licenses in San Diego for the new wireless services. Both companies say they want to be on the air and start marketing their service by 1990.

"We wanted to move quickly on this and not hold up the new technology," says Richard Wilken of the city's communications department. "The issues that we are facing are highly technical. There are going to be very complex negotiations."

That's where Fayer and the attending team comes in. "We didn't have the expertise to participate in these negotiations," Wilken explains, "so we hired a consultant to come up with a plan." The crew now involved three applicants and ultimately chose Ketter and Herlihy. The team is led by R. Herlihy, who specializes in telecommunications. Other participants include Charles L. Lawson and Jeffrey Rabin, of the Strategic Policy Research center in Maryland; Mark Kasser and Klaus Renscher of the Industry Telecommunications Associations; and Fayer, who heads up "strategic planning." (Like Fayer, Rabin and Lawson also have a home on Inver-

Willens admits that Egge's participation gave the Kellers and Fleckenau proposal an advantage over the other, normal lanes. "We liked the fact that they had someone who knew what the situation here was," Willens says, adding, "I absolutely don't think it's a conflict."

Shames disagrees, saying Eger's participation raises some important questions.



of hiring costly consultants, Los Angeles, San Francisco, Portland, and Seattle are all handling the negotiations on their own. "We don't want to waste the taxpayers' money," says Joel Harrington of Portland. "This is an issue of securing emergency communications — not about making Washington, D.C. lawyers rich."

The debate began when the Federal Communications Commission (FCC) decided to reevaluate how it divided the radio spectrum. To accommodate the booming cellular industry, the FCC considered the

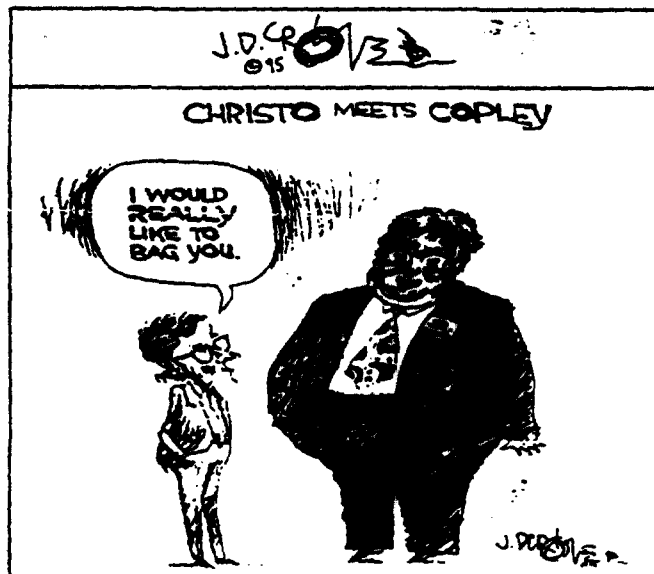
Telecommunications giant Pacific Telephone and Cable, known paid \$20 million to secure licenses in San Diego for the new wireless services. Both companies say they want to be on the air and start marketing their service by 1990.

"We really don't know why [Eger] was on the City of the Future Committee," Shamer says. "Did he do it because he is really interested in finding the best services for the city? Or did he do it so that he could get lucrative city contracts?"

Two weeks ago, Cindy Hicks, Eger's secretary, said her boss was traveling abroad and that she would contact Eger about questions regarding his role in the consulting project. Eger did not return calls. In response to subsequent requests, Hicks said Eger was still out of the country.

"We determined that Mr. Fier's role in the movie's 'Time in the Future' committee had nothing to do with the contract we are talking about," says Assistant City Attorney Charles Färsback. "The committee is not going to vote on

\_\_\_\_\_



## Info highway

continued from page 1

any of the microwave relocation issues. The city is not going to take the position that everyone who has volunteered for a committee is trying to get a contract. That is not a legal issue."

No other major West Coast city has hired outside consulting firms to assist with negotiations. "We are handling this in-house," says Ken Chan, of the City of Los Angeles, which is also negotiating with Pacific Televis and Can Cablevision. "We have already been notified of their intent to use our microwave bands, and we are beginning the negotiation process," he says. Chan estimates that it

continued on page 10

## CITY LIGHTS

continued from page 9

will cost the companies roughly \$1 million to move the city's system.

Portland communication director Harrington says his city has also decided to negotiate without consultants. "The only people who are going to benefit from this are the high-priced consultants, who get paid ridiculous amounts of money. Most cities should be able to do this on their own."

San Diego's Wilken disagrees. "This is a very complicated area of the law, and it's an important decision for San Diego. We wanted to make certain that we understood all of the options available to us in these negotiations." Furthermore, he adds, the consulting fees will ultimately be paid by Pacific Televis and Can — not the taxpayers.

Chan says that his department never even considered the possibility of public-private partnerships. "All we want to do is protect the city's emergency communications network," he says. "This is an opportunity to upgrade our system, at no expense to the taxpayers. I don't think it is appropriate to be speculating about public-private ventures."

Portland's Harrington agrees. "This isn't about looking for opportunities to make money. This is about securing emergency communications systems for the metropolitan area. We've already moved our entire communications system. What I want to do is recoup some of the cost of the relocations."

But San Diego's Wilken says that Portland and L.A. may be missing out on a once-in-a-lifetime opportunity. "We have been getting calls from all over the U.S. asking us for advice," he says. "We want to make sure that we build a state-of-the-art communications network."

However, industry analysts warn that San Diego shouldn't be so eager.

"There are some heightened expectations out there that have to be dealt with. 'Bilking' would not be too strong of a word," says Mark Golden, of the Personal Communications Industry Association.

"Everyone thinks that because [Pacific Televis and Can] have paid millions for the licenses, that they have unlimited deep pockets," continues Golden. "City officials think that they may have discovered a way to help balance the budget. That is categorically untrue — and unfair to the industry. This should be a win-win for everybody."

Wilken says San Diego has no intention of extorting money from the providers. "We want to resolve this issue to the benefit of the taxpayers, but we don't intend to do it at the cost of the new technology." ■



## MICROWAVE RELOCATION

### B. Microwave relocation cost sharing

Completing the relocation process in a timely manner requires the establishment of strong incentives for microwave licensees to relocate and the removal of disincentives for relocation.

PCIA's Microwave Relocation Task Force, which has been aggressively addressing this critical concern since 1994, recognized that many links fall in more than one PCS licensee's geographic market and/or spectrum. Moreover, incumbents have expressed a strong preference to have entire systems, not individual links, replaced. A mechanism for allowing PCS licensees to share cost of microwave relocations in such cases was identified by the industry as a priority issue.

PCIA proposed such a cost sharing plan in Docket 90-314. While the Commission failed to act on PCIA's proposal at that time, the imminent deployment of PCS systems has raised the level of urgency in securing a resolution in this matter.

Pacific Bell (a PCIA Microwave Relocation Task Force participant) filed a *Petition for Rulemaking* in May 1995 which refined PCIA's original proposal and made the case for adoption of a cost sharing plan on an expedited basis. PCIA's task force made further refinements to the plan and secured a broad ranging consensus of PCS licensees in support of the PCIA proposal.<sup>1</sup>

Expeditious implementation of cost sharing is a priority issue for the broadband PCS industry.

---

<sup>1</sup> Ameritech, American Personal Communications, Bell South Wireless, Ominipoint Communications, Pacific Bell Mobile Services and Western PCS Corporation, companies with PCS A and B block authorizations covering approximately 100 million POPs, were signatories on PCIA's cost sharing plan; Comments filed demonstrated overwhelming support among both PCS licensees and the microwave industry.



Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

Petition for Rulemaking	)	
of Pacific Bell Mobile Services	)	RM-8643
Regarding a Plan for Sharing	)	
the Costs of Microwave Relocation	)	

**COMMENTS OF  
THE PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION**

Jay Kitchen  
President  
Personal Communications  
Industry Association  
1019 19th Street, N.W.  
Suite 1100  
Washington, D.C. 20036  
(202) 467-4770

June 15, 1995